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TORQUE CONVERTER WITH A THIN TORUS TURBINE

ABSTRACT OF THE DISCLOSURE

A torque converter includes an impeller and a turbine. The impeller has a substantially constant flow area from a radially inward inlet to a radially outward outlet through a toroidal path. The torque converter turbine has an inlet flow area substantially equal to the impeller outlet flow area and an outlet flow area substantially equal to the impeller inlet flow area. The flow area of the turbine along a toroidal path decreases in size from the turbine inlet to a point substantially midway through the flow path from which point the flow area increases so that the outlet flow area is substantially equal to the inlet flow area.